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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,414	09/12/2005	Oleg Stenzel	264689US0PCT	6301
22850	7590	03/28/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
HANOR, SERENA L				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
03/28/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/523,414

**Applicant(s)**

STENZEL ET AL.

**Examiner**

SERENA L. HANOR

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 5-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/88)  
Paper No(s)/Mail Date See Continuation Sheet
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :02/03/2005, 04/06/2005, 10/11/2005.

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-4, in the reply filed on 01/11/2008 is acknowledged. The traversal is on the ground(s) that there is not serious burden placed on the examiner, the Examiner has not explained why each group lacks unity with each other group, the Examiner has not provided any indication that the contents of the claims interpreted in light of the description were considered in making the assertion of a lack of unity, and that the Examiner has not considered the relationship of the inventions of Groups I-IV with respect to 37 C.F.R. § 1.475(b)(3) and MPEP § 806.03. This is not found persuasive because the limitations of the description should not be read into the claims. Furthermore, the Examiner has considered the relationship of the inventions of Groups I-IV through their citation of the special technical feature set forth to be common to all Groups, but the special technical feature is not novel over the prior art.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 5-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 01/11/2008.

***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Germany on 08/03/2002 and 07/04/2003. It is noted, however, that

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applicant has not filed certified copies of the 103 30 222.0 and 102 35 561.4 applications as required by 35 U.S.C. 119(b).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

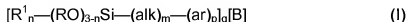
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Goerl et al. (U.S. Patent No. 5,705,137).

Goerl et al. discloses a precipitated silica with the following characteristics (col. 2 lines 33-54):

BET surface area	35-350 m <sup>2</sup> /g
CTAB surface area	200-400 m <sup>2</sup> /g
DBP number	230-380 g/(100g)
Sears number V <sub>2</sub>	20-30 ml.

Furthermore, precipitated silicas may have their surfaces modified by the following organosilanes (col. 3):



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wherein:

B: -SCN, -SH, -Cl, -NH<sub>2</sub> (if q=1), or -Sx--(if q=2),R and R<sup>1</sup>: an alkyl group with 1 to 4 carbon atoms or a phenyl group, wherein all R and R<sup>1</sup> groups may be identical or different,

n: 0, 1, or 2,

alk: a divalent straight-chain or branched hydrocarbon group with 1 to 6 carbon atoms,

m: 0 or 1,

ar: an arylene group with 6 to 12 C atoms, preferably 6 C atoms,

p: 0 or 1, with the proviso that p and n are not simultaneously 0,

x: a number from 2 to 8,

alkyl: a monovalent straight-chain or branched saturated hydrocarbon group with 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,

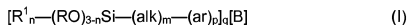
alkenyl: a monovalent straight-chain or branched unsaturated hydrocarbon group with 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms.

6. Claims 1, 2, 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Goerl et al. (U.S. Patent No. 5,859,117).

Goerl et al. discloses a precipitated silica with the following characteristics (col. 2 lines 35-55):

BET surface area	35-350 m <sup>2</sup> /g
CTAB surface area	200-400 m <sup>2</sup> /g
DBP number	230-380 g/(100g)
Sears number V <sub>2</sub>	20-30 ml.

Furthermore, precipitated silicas may have their surfaces modified by the following organosilanes (col. 3):



wherein:

B: -SCN, -SH, -Cl, -NH<sub>2</sub> (if q=1), or -Sx--(if q=2),

R and R<sup>1</sup>: an alkyl group with 1 to 4 carbon atoms or a phenyl group, wherein all R and R<sup>1</sup> groups may be identical or different,

n: 0, 1, or 2,

alk: a divalent straight-chain or branched hydrocarbon group with 1 to 6 carbon atoms,

m: 0 or 1,

ar: an arylene group with 6 to 12 C atoms, preferably 6 C atoms,

- p: 0 or 1, with the proviso that p and n are not simultaneously 0,
- x: a number from 2 to 8,
- alkyl: a monovalent straight-chain or branched saturated hydrocarbon group with 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,
- alkenyl: a monovalent straight-chain or branched unsaturated hydrocarbon group with 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms.

7. Claims 1, 2 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Lindner et al. (U.S. Pre-Grant Publication 2003/0003040 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Lindner et al. discloses a precipitated silica with the following characteristics (claims 1, 4):

BET surface area	50-700 m <sup>2</sup> /g
CTAB surface area	50-350 m <sup>2</sup> /g
DBP number	100-450 g/(100g)
Sears number V <sub>2</sub>	20-45 ml.



***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. The person having ordinary skill in the art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The references of record in this application reasonably reflect this level of skill.

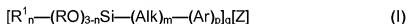
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12. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uhrlandt et al. (U.S. Patent No. 6,180,076) in view of Lindner et al. (U.S. Pre-Grant Publication 2003/0003040 A1).

Uhrlandt et al. discloses a precipitated silica with the following characteristics (col. 1 lines 40-50):

BET surface area	120-300 m <sup>2</sup> /g
CTAB surface area	100-300 m <sup>2</sup> /g
DBP number	150-300 g/(100g)
Sears number V <sub>2</sub>	6-25 ml (consumption of 0.1 N NaOH)
WK coefficient	< 3.4
Degraded particle size	<1.0 μm
Non-degraded particle size	1.0-100 μm.

The precipitated silica is modified with organosilanes of the formulae I to III (col. 3-4):



wherein:

Z: -SCN, -SH, -Cl, -NH<sub>2</sub> (if q=1), or -Sx- (if q=2),

R and R<sup>1</sup>: an alkyl group having 1 to 4 carbon atoms, the phenyl radical, wherein all the radicals R and R<sup>1</sup> can each have the same or a different meaning,

R: a C<sub>1</sub>-C<sub>4</sub> -alkyl, C<sub>1</sub>-C<sub>4</sub> -alkoxy group,

- n: 0, 1, or 2,
- Alk: a divalent straight-chain or branched hydrocarbon radical having 1 to 6 carbon atoms,
- m: 0 or 1,
- Ar: an arylene radical having 6 to 12 C atoms, preferably 6 C atoms,
- p: 0 or 1, with the proviso that p and n do not simultaneously denote 0,
- x: a number from 2 to 8,
- alkyl: a monovalent straight-chain or branched unsaturated hydrocarbon radical having 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,
- alkenyl: a monovalent straight-chain or branched unsaturated hydrocarbon radical having 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms.

Uhrlandt et al. differs from the instant application in that the DBP number is in the range 150-300 g/(100g).

Lindner et al. discloses a DBP number in the range 100-450 g/(100g) (claim 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the DBP number of Uhrlandt et al. (col. 1 lines 40-50) *by increasing it up to 450 g/(100g)*, as per Lindner et al., as set forth in Applicants' claim 1, **because of the expected advantage** of producing a more water resistant rubber

compound, as the DBP number is used as a measure of an affinity of silicas for hydrophobic compounds (Lindner et al. paragraph [0032]).

### ***Conclusion***

13. Claims 1-4 have been rejected.
14. Claims 5-17 have been withdrawn as being drawn to a non-elected invention.
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SERENA L. HANOR whose telephone number is (571)270-3593. The examiner can normally be reached on Monday - Thursday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SLH

/Timothy C Vanoy/

Primary Examiner, Art Unit 1793